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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/009,019

03/02/2005

Allesio Casati

Casati 1-1-1

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22046 7590 11/17/2008  
Docket Administrator - Room 2F-192  
Alcatel-Lucent USA Inc.  
600-700 Mountain Avenue  
Murray Hill, NJ 07974

EXAMINER

SANTIAGO CORDERO, MARIVELISSE

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

11/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/009,019	<b>Applicant(s)</b> CASATI ET AL.	
	<b>Examiner</b> MARIVELISSE SANTIAGO-CORDERO	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9/10/2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/10/2008 has been entered.

#### ***Information Disclosure Statement***

2. The references cited in the Information Disclosure Statement (IDS) filed on 9/10/2008 have been considered.

#### ***Response to Arguments***

3. Applicant's arguments filed on 9/10/2008 have been fully considered but they are not persuasive.

Applicant argues that none of the particular passages of Barnes cited by the Examiner refer to a routing area update (RAU) completion message (Remarks: page 6, 1<sup>st</sup> full paragraph). In response the Examiner respectfully disagrees. Barnes clearly discloses a routing area update (RAU) completion message in Figure 5a, reference 328 and col. 10, lines 60-62. Applicant further argues that none of the particular passages of Barnes cited by the Examiner refer in particular responding to receipt of a RAU completion message by sending the mobile IP agent advertisement (Remarks: page 6, 1<sup>st</sup> full paragraph). In response, the Examiner contends that is the same reason why an obviousness type rejection was made instead of an anticipation rejection.

Applicant further argues that Frid also does not teach the required feature of claim 1 of “controlling support node responding to receipt of the routing area update completion message

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by sending a mobile internet protocol agent advertisement to the mobile system, since Frid's Mobile IP Agent Advertisement 780 (Fig. 6) is instead sent in response to receipt of a Mobile IP agent solicitation message 770 (Remarks: page 6, 2<sup>nd</sup> full paragraph). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As stated in the last Office Action, Barnes discloses merging packet service, such as GPRS, with mobile IP (Abstract; col. 4, lines 28-42) and the controlling support node capable of handling mobile IP specific messaging (Abstract; col. 4, lines 39-42). Note that Mobile IP agent advertisement messages are widely available and notoriously well-known in the art to be specific messaging of Mobile IP. Frid discloses the controlling support node responding to receipt of the routing area update message (Fig. 6, reference 630; col. 6, lines 10-13; col. 8, lines 41-45) by sending a mobile Internet protocol agent advertisement message to the mobile system (Fig. 6, reference 780). The obvious combination of Barnes and Frid discloses the invention claimed. Furthermore, the claim does not uniquely and particularly define the term "responding to receipt" so as to distinguish from the applied art. During patent examination the claims must be given their broadest reasonable interpretation. See MPEP 2111. The term "responding to receipt" is broadly claimed therefore, broadly interpreted. For explanation purposes, note that in Frid's figure 6 all messages 640-830 are in response to receipt of message 630 independently of when they are sent; messages 650-830 are in response to receipt of messages 630 and 640; messages 700-830 are in response to receipt of messages 630-700,

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etcetera. Therefore, the agent advertisement 780 responds to receipt of the solicitation message 770 which responds to receipt of all previous messages.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes et al. (hereinafter "Barnes"; Patent No.: US 6,711,147) in view of Frid et al. (hereinafter "Frid"; cited in PTO-892, paper no. 20071116).

Regarding claim 1, Barnes discloses a method of supporting mobile internet protocol (Abstract; note the merging of packet service with mobile IP) when a mobile system moves from a former routing area to a new routing area (col. 2, lines 54-64; col. 4, lines 60-66) and sends to a controlling support node (Fig. 5a, reference 284) a routing area update message (Fig. 5a, reference 302; col. 10, lines 26-30), comprising the step of:

the controlling support node receiving a routing area update completion message (Fig. 5a, references 328; col. 10, lines 60-62).

Barnes fails to specifically disclose the controlling support node responding to receipt of the routing area update completion message by sending a mobile Internet protocol agent advertisement to the mobile system.

However, Barnes discloses merging packet service, such as GPRS, with mobile IP (Abstract; col. 4, lines 28-42). Barnes further discloses the controlling support node capable of

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handling mobile IP specific messaging (Abstract; col. 4, lines 39-42) and a controlling support node/foreign agent using internet protocols (col. 7, lines 50-56). In addition, Barnes discloses the standard mobile internet protocol with three major subsystems including a discovery mechanism which provides mobile nodes with new attachment points (new IP addresses) as they move within the network (col. 3, lines 4-19 and 56-61; fairly characterized as advertisements). When the mobile node learns its new IP address, it registers (col. 3, lines 4-19 and 56-61). Accordingly, Barnes does suggest the controlling support node responding to receipt of the routing area update completion message by sending a mobile Internet protocol agent advertisement to the mobile system.

Nevertheless, in the same field of endeavor, Frid discloses a method of supporting mobile internet protocol when a mobile system moves from a former routing area to a new routing area and sends to a controlling support node a routing area update message (Fig. 6, reference 630; col. 6, lines 10-13; col. 8, lines 41-45), comprising the step of:

the controlling support node responding to receipt of the routing area update message by sending a mobile Internet protocol agent advertisement message to the mobile system (Fig. 6, reference 780).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to send, by the controlling support node responding to receipt of the routing area update completion message of Barnes a mobile Internet protocol agent advertisement message to the mobile system as suggested by Frid for the advantages of determining whether the mobile node is on its home network or a foreign network, enabling the

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merging of packet service, such as GPRS, with mobile IP, and enabling the controlling support node to be capable of handling mobile IP specific and known messaging.

Regarding claim 3, in the obvious combination, Frid discloses in which the advertisement is sent on a traffic channel (Fig. 6, reference 780; col. 9, lines 40-44); note that the traffic channel is inherently present).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to send the advertisement on a traffic channel as suggested by Frid for the advantages of ensuring reception of the message.

Regarding claim 4, in the obvious combination, Barnes discloses in which a mobile Internet protocol movement detection algorithm detects a change of foreign agent of the mobile system (col. 3, lines 4-19 and 41-61; col. 4, lines 53-66; col. 5, lines 11-30).

Regarding claim 5, in the obvious combination, Barnes discloses in which on detection of a change of foreign agent, the mobile system is registered by mobile internet protocol registration (col. 3, lines 4-19 and 41-61; col. 4, lines 53-66; col. 5, lines 11-30).

Regarding claim 6, in the obvious combination, Barnes discloses in which the former and new routing areas are within the same or different support networks (col. 4, lines 60-63; col. 8, lines 16-20), and the advertisement (note the explanation of the obvious combination given above for claim 1) is sent after successful sending and receipt of routing area update request, acceptance and completion messages (Fig. 5a, references 302, 326a, and 328, respectively).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes in combination with Frid as applied to claim 1 above, and further view of well known prior art.

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Regarding claim 2, Barnes in combination with Frid discloses the method according to claim 1 (see above), but fails to specifically disclose in which the advertisement includes challenge/response and network access identifier extensions.

However, the Examiner takes Official Notice of the fact that at the time of invention by Applicant, it was notoriously well-known in the art to include in the advertisement messages challenge/response and network access identifier extensions for the advantages of communicating the latest challenge value that can be used by the mobile node to compute a challenge response which would serve for authentication and to prevent other network entities from using the network identity to intercept packets, and for the advantages of determining if the mobile node has entered a new administrative domain.

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to include in the advertisement message of Barnes in combination with Frid challenge/response and network access identifier extensions as notoriously well-known in the art for the advantages of communicating the latest challenge value that can be used by the mobile node to compute a challenge response which would serve for authentication and to prevent other network entities from using the network identity to intercept packets, and for the advantages of determining if the mobile node has entered a new administrative domain.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes in combination with Frid as applied to claim 1, above and further in view of Einola et al. (hereinafter "Einola"; Patent No.: 6,438,370).

Regarding claim 7, Barnes in combination with Frid discloses the method according to claim 1 (see above) in which the advertisement (see explanation of claim 1 above) is sent after



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successful sending and receipt of request, acceptance and completion messages (Barnes: Fig. 5a, references 302, 326a, and 328, respectively), but fails to specifically disclose in which the former and new routing areas are within different radio network controllers, and sending and receipt of radio network controller relocation request, acceptance and completion messages.

However, in the same field of endeavor, Einola discloses in which the former and new routing areas are within different radio network controllers (Figs. 4 and 12), and sending and receipt of radio network controller relocation request, acceptance and completion messages (Fig. 12).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to modify the former and new routing areas of Barnes in combination with Frid to be within different radio network controllers, and sending the advertisement of Barnes in combination with Frid after successful sending and receipt of radio network controller relocation request, acceptance and completion messages as suggested by Einola for the advantages of allowing successful performance of inter-SGSN handover procedures whereby the radio related entities are maintained (Einola: col. 6, lines 15-20), in addition, to being components already widely available in the art.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIVELISSE SANTIAGO-CORDERO whose telephone number is (571)272-7839. The examiner can normally be reached on Monday through Friday from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent P. Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617

/MARIVELISSE SANTIAGO-CORDERO/

Examiner, Art Unit 2617